Dungeness Crab in the Georgia Basin: A Unique Stock!

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Abstract

Recent studies suggest that behavioral differences between Dungeness crab from the Georgia Basin and those from the outer coast effectively isolate the two stocks. The spatial distribution of Dungeness crab in the Georgia Basin is also the result of extreme environmental conditions, which largely limit high abundance of this species to areas of the basin with little thermal stratification. These data are presented to illustrate that evaluating relative species occurrence and abundance is not a trivial task, and that a broad ecological perspective is often helpful in drawing conclusions. Strictly from a Dungeness crab perspective, these data explain why Dungeness crab cycles of abundance between the basin and outer coast waters are disassociated and are relatively more stable.

Status of Puget Sound Bottomfish Stocks

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Abstract

Stock assessments were conducted for 36 bottomfish stocks in Puget Sound. Catch, effort, and survey data were assembled for the north and south Sound regions for each of 18 species or species complexes. Only 28 stocks had sufficient information to determine stock status and recent trend. The majority of these stocks were in below-average, depressed or critical abundance conditions. Thirteen of the 28 stocks were in decline while eight were increasing. The north Sound had more stocks at average or above-average conditions than the south Sound, where eight of 11 stocks were at below-average or critical conditions. The south Sound had seven stocks that lacked recent information to assess stock status.

Spiny dogfish, skates, and ratfish appeared to be in satisfactory condition. In contrast, virtually all of the codfish stocks (Pacific cod, walleye pollock, and Pacific whiting) were in depressed or critical conditions or were in decline. Rockfishes and lingcod, species living in association with rocky reefs, showed mixed patterns of stock condition. Lingcod were declining in the north and south Sound, and populations were depressed in the north Sound but were at average levels in the south Sound. Rockfish populations showed no trend in either area and were at average levels in the north Sound and at below average conditions in the south Sound. English sole and starry flounder, key flatfish stocks in the north Sound, were increasing in abundance, but the fisheries remove a substantial proportion of the adult population, which is overutilized. In the south Sound, the lack of recent fisheries precluded the determination of stock condition, but trawl survey data suggested the stocks are underutilized. A variety of species including greenlings, sculpins, and sablefish had very poor information for assessing stock condition.